Invasive Salmonella Infections in the United States, FoodNet 1996-1999.

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Category: 24. Public Health/Epidemiology

Background: Invasive *Salmonella* infections can be life-threatening, usually requiring antimicrobial treatment and hospitalization. Population-based incidences of invasive salmonellosis have not been previously reported in the United States.

Methods: We analyzed population-based data collected from 1996 through 1999 by the Foodborne Diseases Active Surveillance Network (FoodNet) for incidence, serotypes, and outcome of invasive *Salmonella* infections.
Results: Of 540 invasive *Salmonella* isolates, 519 (96%) were from blood, 15 (3%) from bone or joint, 3 (0.6%) from cerebrospinal fluid, and 3 (0.6%) from peritoneal fluid. The mean annual incidence was 0.9 per 100,000 population, and was highest among infants less than a year old (8.3 per 100,000). African-Americans, Asians, and Hispanics all had higher average annual incidences of invasive infections than Whites (2.5, 2.0, 1.3 vs. 0.4 per 100,000, respectively; all $p<0.001$). Seventy-four percent of cases were due to eight *Salmonella* serotypes: *S.* Typhimurium, *S.* Typhi, *S.* Enteritidis, *S.* Heidelberg, *S.* Dublin, *S.* Paratyphi A, *S.* Choleraesuis, and *S.* Schwarzengrund. Of invasive cases, 385 (71%) were hospitalized and 30 (6%) died; 98 (25%) of those hospitalized and 15 (50%) of the deaths were persons 60 years and older.

Conclusion: Invasive *Salmonella* infections are a substantial health problem in the United States and contribute to hospitalizations and deaths, particularly among the elderly. Further studies are needed to understand why invasive *Salmonella* infections are more common among certain populations.

Key words: *Salmonella*, invasive infection, incidence

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